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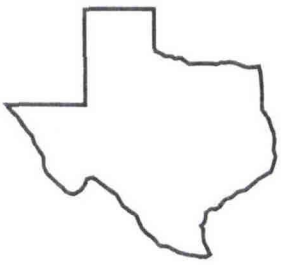
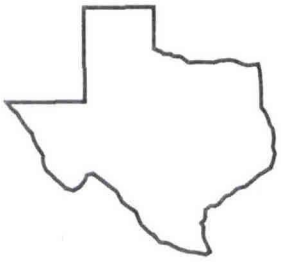
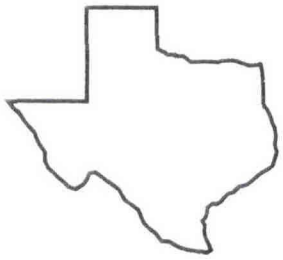
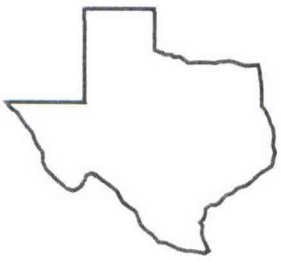




Overton Field Day Report - 1994





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Texas Agricultural Experiment Station • Edward A. Hiler, Director
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FORAGE LEGUMES FOR TEXAS

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Background. Forage legume cultivar evaluations were conducted at Overton, TX for four to six years on annual and perennial forage legumes. Clover mixtures were evaluated in 1992 and 1993. Plots were overseeded in October of each year on bermudagrass sods. Initial harvests were taken in mid-March each year with subsequent regrowth harvests every three or four weeks. Plots were harvested to a stubble height of 2.25 inches.

Current Information. Hairy vetch and crimson clover produced more forage in March and early April than the other legumes evaluated in these studies. Hairy vetch and crimson clover produced 60% of their total forage yield by the early April harvest. In contrast, 60% of arrowleaf clover forage production was concentrated in the May harvest. Arrowleaf clover is generally 4 to 5 weeks later in maturity than crimson clover at Overton.

Overton R18 rose clover is 3 weeks later in maturity than Dixie crimson clover. Forage yield distribution of this new rose clover variety falls between crimson and arrowleaf clover with 50% of total forage yield found in the May harvest. Kondinin rose clover was included in these trials as a rose clover check variety. Kondinin flowers 3 to 4 weeks earlier than crimson clover and has low forage yields as a result of both early maturity and low cold tolerance. Bigbee berseem gave acceptable yields in some years but is not adapted to sandy, acid, upland soils. Berseem clover is best adapted to clay loam soils with good moisture availability and a near neutral pH. Seventy-five percent of Common ball clover's forage yield was in the May harvest. The forage yield distribution of ball clover is more like white clover than the other annual clovers. The white and red clovers began their forage production season about one month later than the other forage legumes that were evaluated. Forage production of white and red clover ranged from April to early June with no summer survival. The white clover variety La. S-1 was not as productive as Regal or Osceola but is well adapted with good reseeding characteristics.

Recommendations. The following information is a partial list of forage legume resources that can be used in Texas. These legumes or legume mixtures should be sod-seeded in September or October on warm-season perennial grasses such as bermudagrass, bahia, or bluestem. Fertilization and liming according to soil test are required. Seed should be inoculated with specific inoculum to ensure nitrogen fixation.

Reseeding Crimson Clover

- Plant 20 lbs/ac of Dixie, Tibbee, or Chief
- Large seeded with best seedling vigor and good early season production
- Reseeding stands can be grazed as early as November
- Remove cattle by 1 to 15 April and resume grazing or take hay harvest around 1 June
- Adapted to well drained, sandy soils

Crimson Clover + Reseeding Ball Clover

- Plant 15 lbs/ac of crimson + 2 lbs/ac of ball clover
- Good early season production from the crimson clover
- More forage in May than with crimson alone
- Ball clover will reseed under moderate grazing pressure
- Adapted to well drained, sandy soils

Crimson Clover + Red Clover

- Plant 15 lbs/ac of crimson + 7 lbs/ac of Kenland or Cherokee red clover
- Good early season production from the crimson clover
- Potential for clover production through June from the red clover
- Best mixture for long season (February - June) clover production
- Adapted to well drained, sandy and loam soils

Crimson Clover + White Clover

- Plant 10 lbs/ac of crimson + 3 lbs/ac of Regal or Osceola white clover
- Excellent early season production from the crimson clover
- Potential for clover production through June from the white clover
- Most economical clover mixture for long season (February - June) clover production
- Adapted to well drained, sandy and loam soils

Arrowleaf Clover

- Plant 15 lbs/ac of Yuchi, Meechee or Amclo arrowleaf clover
- Good forage production in March - May with less early production than crimson
- Excellent reseeding potential
- Virus disease problems have greatly reduced arrowleaf use in last 5 years in east Texas
- Adapted to well drained, sandy soils

Reseeding Rose Clover

- Plant 15 lbs/ac of Overton R18 rose clover
- Good forage production from March through May
- Remove cattle or allow only light grazing from late May to late June to enhance reseeding
- Excellent reseeding potential
- Stands can be established by planting 5 lbs/ac but first year production will be reduced
- Adapted to well drained soils with pH of 5.5 to 8.0
- Best adapted clover to moderate rainfall areas of central Texas

Reseeding White Clover

- Plant 3 lbs/ac of Regal (or Osceola) white clover + 3 lbs/ac La. S-1 white clover
- Good forage production March - June
- Potential for both reseeding and for plants to live through the summer as perennials
- Adapted to bottomland, silt or clay loam soils

Berseem Clover

- Plant 20 lbs/ac Bigbee berseem
- Good forage production February - May
- Adapted to bottomland, silt or clay loam soils
- Best adapted to areas south of I-10 with neutral to alkaline pH
- Reseeding is variable and dependent on management and season